

## **CLAIM AMENDMENTS**

Please amend the claims as described below. In accordance with 37 CFR §1.121, a complete listing of all claims in the application is provided below. Notably, the status of each claim is indicated in the parenthetical expression adjacent to the claim number.

Claims 1 – 59 (**canceled**).

1           60. (**new**)   A method of imaging an artery in a patient using magnetic resonance  
2   imaging and an administered magnetic resonance contrast agent, comprising,  
3           collecting image data of an image sequence wherein the image sequence includes:  
4                   image data which is representative of a center of k-space, and  
5                   image data which is representative of a periphery of k-space, and  
6           wherein the image sequence is arranged to collect image data which is  
7           representative of the periphery of k-space before collecting image data which is  
8           representative of the center of k-space; and  
9           temporally correlating the administration of the magnetic resonance contrast agent  
10   to the patient with collecting image data which is representative of the center of k-space  
11   based on an estimated circulation time of the contrast agent in the patient.

1           61. (**new**)   The method of claim 60 wherein temporally correlating the  
2   administration of the magnetic resonance contrast agent to the patient with collecting  
3   image data which is representative of the center of k-space further includes temporally  
4   correlating the administration of the magnetic resonance contrast agent to the patient  
5   based on the delay time in a delivery system.

1           62. **(new)**   The method of claim 60 wherein temporally correlating administering  
2   the magnetic resonance contrast agent with collecting image data based on the circulation  
3   time of the contrast agent provides a concentration of contrast agent in the artery is  
4   substantially greater than a concentration of contrast agent in veins and background tissue  
5   adjacent to the artery while collecting the image data which is representative of the center  
6   of k-space.

1           63. **(new)**   The method of claim 60 wherein the image sequence is a 3D pulse  
2   sequence.

1           64. **(new)**   The method of claim 63 wherein the artery is the aorta and the image  
2   data corresponding to the aorta is reconstructed to create a maximum intensity projection.

1           65. **(new)**   The method of claim 60 wherein temporally correlating the  
2   administration of the magnetic resonance contrast agent to the patient with collecting  
3   image data which is representative of the center of k-space further includes temporally  
4   correlating based on a location or size of the artery.

1           66. **(new)**   The method of claim 60 wherein the imaging pulse sequence is  
2   arranged to collect image data which is representative of the periphery of k-space before  
3   and after collecting image data which is representative of the center of k-space.

1           67. **(new)** The method of claim 60 wherein the imaging sequence is a 3D pulse  
2 sequence having a TR that is less than 25 milliseconds.

1           68. **(new)** The method of claim 67 wherein the 3D pulse sequence further includes  
2 a flip angle is about 40 degrees.

1           69. **(new)** A method of imaging an artery in a patient using a magnetic resonance  
2 imaging apparatus, comprising,  
3 administering a magnetic resonance contrast agent to the patient;  
4 collecting image data of an imaging pulse sequence; and  
5 temporally correlating administering the magnetic resonance contrast agent with  
6 collecting image data based on the type of the imaging pulse sequence and the circulation  
7 time of the magnetic resonance contrast agent in the patient to provide a concentration of  
8 the contrast agent in the artery which is substantially greater than the concentration of  
9 contrast agent in veins adjacent to the artery during collecting the image data.

1           70. **(new)** The method of claim 69 wherein the imaging pulse sequence is arranged  
2 to collect image data which is representative of a periphery of k-space before and after  
3 collecting image data which is representative of a center of k-space.

1           71. **(new)** The method of claim 69 wherein the pulse sequence is arranged to  
2 collect image data which is representative of the center of k-space before collecting image  
3 data which is representative of the periphery of k-space.

1           72. **(new)** The method of claim 69 wherein temporally correlating administering the  
2 magnetic resonance contrast agent with collecting image data further includes correlating  
3 administering the magnetic resonance contrast agent with collecting the image data based  
4 on the amount of contrast agent administered.

1           73. **(new)** The method of claim 69 further including instructing the patient to  
2 suspend respiration while collecting the image data which is representative of a center of k-  
3 space.

1           74. **(new)** The method of claim 69 wherein temporally correlating administering the  
2 magnetic resonance contrast agent with collecting image data further includes  
3 administering the magnetic resonance contrast agent to the patient before collecting image  
4 data to provide a maximum concentration of the contrast agent in the artery relative to the  
5 veins adjacent to the artery to coincide with collecting the image data which is  
6 representative of a center of k-space.

1           75. **(new)** The method of claim 69 wherein the imaging sequence is a 3D pulse  
2 sequence having a TR that is less than 25 milliseconds.

1           76. **(new)** The method of claim 75 wherein the 3D pulse sequence is arranged to  
2 collect the image data which is representative of the center of k-space substantially at the  
3 beginning of the 3D pulse sequence.

1            77. **(new)** The method of claim 76 wherein administering the magnetic resonance  
2 contrast agent includes administering the contrast agent to the patient by bolus injection.

1            78. **(new)** The method of claim 75 wherein the 3D pulse sequence is arranged to  
2 collect the image data which is representative of the center of k-space substantially in the  
3 middle of the 3D pulse sequence.

1            79. **(new)** The method of claim 69 wherein the artery is the aorta and the image  
2 data corresponding to the aorta is reconstructed to create a maximum intensity projection.